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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/543,281	04/05/2000	Guolin Ma	D0532/7031-GSE	6483

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EXAMINER

FERGUSON, LAWRENCE D

ART UNIT

PAPER NUMBER

1774

DATE MAILED: 06/19/2002

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Offic Action Summary	Application N .	Applicant(s)
	09/543,281	MA ET AL.
	Examiner	Art Unit
	Lawrence D Ferguson	1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 18 March 2002.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-31 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-31 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All
 - b) Some *
 - c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment mailed March 18, 2002.

Claims 1-2, 5-6, 11-13, 21 and 25 were amended and claims 1-31 are pending.

Claim Rejections – 35 USC § 112, first paragraph

2. Claims 1-31 rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In claims 1 and 11 Applicant discloses "a coating system of layers having a thermal conductivity that maintains the coating system of layers at a temperature that does not cause more evaporation during read and write operations of the same coating system of layers and of molecules adsorbed therein from an ambient atmosphere than absent the read and write operations". There is no support for this phrase in Applicant's specification. Furthermore, Applicant claims 'the coating system of layer at a temperature that does not cause more evaporation during read and write operations of the coating system of layers' where there is no previous disclosure of evaporation in the claim.

Claim Rejections – 35 USC 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. In claim 13, the phrase "that substantially dissipates heat" is indefinite.

Substantially is a relative term and does not provide a requisite degree.

Claim Rejections – 35 USC § 103(a)

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3, 5-6, 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buckingham et al. (U.S. 5,168,031) in view of Rosen et al. (U.S. 5,761,188) for the reasons set forth in paragraph 5, in the previous office action, mailed October 03, 2001.

Claim Rejections – 35 USC § 103(a)

7. Claims 1-5, 7, 9-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosen et al. (U.S. 5,761,188) in view of Lee et al. (U.S. 5,729,393) for the reasons set forth in paragraph 7, in the previous office action, mailed October 03, 2001.

Response to Arguments

8. Claim rejections under 35 USC 112, second paragraph are overcome due to Applicant's amendments to claims 1-2, 5-6, 10, 12-13, 21 and 25. The arguments in regards to rejection under 35 USC 103(a) as being unpatentable over Buckingham et al. (U.S. 5,168,031) in view of Rosen et al. (U.S. 5,761,188) have been considered but are unpersuasive. Applicant argues Rosen adds a discussion of thermal conductivity that leads on away from the structure claimed because the choice of thermal conductivity is driven by the desire to obtain specific mechanical and thermal performance at the recording layer and the internal layers having high thermal conductivity resulting in none of the layers whose thermal conductivities is discussed in a position where adsorption or desorption of material from an ambient atmosphere can occur. This is not true because Rosen teaches at least one first dielectric layer (59) and protective layer (51) having low thermal conductivity. Because the references have the same materials as Applicants, it is obvious that the surface temperature is maintained at a surface of the medium. Although the layers of Rosen may not be in the same order as the claimed invention, rearranging parts of an invention involves only routine skill in the art to the average

artisan. This would result in an arrangement such that no significant physical evaporation of the protective layer or adsorbed molecules from an ambient atmosphere occurs. Applicant states claim 1 now recites 'a coating system of layers having a thermal conductivity that maintains the coating system of layers at a temperature that does not cause more evaporation during read and write operations of the same coating system of layers and of molecules adsorbed therein from an ambient atmosphere than absent the read/write operations' which has been held to new matter. Applicant argues nothing in the cited combination teaches selecting the thermal conductivity to prevent evaporation of the protective layer or to prevent evaporation of adsorbed molecules. Although the prior art does not specifically disclose the prevention of evaporation, Rosen does teach protection from deformation and obviously protection from *significant* physical evaporation.

The arguments in regards to rejection under 35 USC 103(a) as being unpatentable over Rosen et al. (U.S. 5,761,188) in view of Lee et al. (U.S. 5,729,393) have been considered but are unpersuasive. Applicant argues neither Rosen nor Lee addressed the evaporation issue at all resulting in the references not teaching or suggesting the combinations recited in the independent claims. Although the prior art does not specifically disclose the prevention of evaporation, Rosen does teach protection from deformation and obviously protection from *significant* physical evaporation.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is (703) 305-9978. The examiner can normally be reached on Monday through Friday 8:30 AM - 4:30PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. Please allow the examiner twenty-four hours to return your call.

The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2351.



Lawrence D. Ferguson
Examiner
Art Unit 1774

CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

